

## ABSTRACT OF THE DISCLOSURE

The present invention provides a semiconductor device  
embracing (a) a first semiconductor region defined by a first end  
5 surface, a second end surface opposing to the first end surface and  
a side boundary surface connecting the first and second end  
surfaces; (b) a second semiconductor region connected with the first  
semiconductor region at the second end surface; (c) a third  
10 semiconductor region connected with the first semiconductor region  
at the first end surface; and (d) a fourth semiconductor region  
having inner surface in contact with the side boundary surface and  
an impurity concentration lower than the first semiconductor  
region. The fourth semiconductor region surrounds the first  
15 semiconductor region, and is disposed between the second and third  
semiconductor regions. The first, second and fourth semiconductor  
regions are first conductivity-type, but the third semiconductor  
region is a second conductivity type.

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